

Date: Mon, 19 Jul 93 17:29:33 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #876
To: Info-Hams

Info-Hams Digest Mon, 19 Jul 93 Volume 93 : Issue 876

Today's Topics:

(none)
Alinco DJ-580 Intermod Reduction
 help me choose a good name....
How does an American sign in Canada?
 Ohio/Penn DX Bulletin #120
 reciprocal licenses
 teletypes (3 msgs)
using the sound blaster for packet (2 msgs)
 Yaesu FT-530 HT Mods?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 20 Jul 93 04:52:07 GMT
From: news-mail-gateway@ucsd.edu
Subject: (none)
To: info-hams@ucsd.edu

Thanks for the responce about MPF102 replacement...
I am posting a (usefull I think) summary.

73 de George (SV3CHA)

Hi, George...If memory serves me, I believe the 2N4416 is a suitable
drop-in replacement for the MPF102. The QST "Ugly Weekender" project

from a decade or so ago uses the 2N4416 in the VFO (if I am recalling correctly); seems like the article noted that an MPF102 could be used instead, but the VFO output would be reduced somewhat.

This is all from memory--I don't have the article in front of me.
Sorry...

73 de aa0ms

I'm a bit baffled by your request. The MPF102 is by far the most commonly available VHF JFET, at least here in the States. There are lots of second sources; it certainly doesn't have to come from Motorola.

Are you having trouble finding it, or are you looking for a similar part for some other application? Most MPF102 applications will work with any small-signal JFET with F_t above 500 MHz or so.

73 de ke9tv/2, Kevin KENNY GE Corporate R&D, Niskayuna, New York, USA

Almost any jfet will work.

Even the pack of 10 on a card from 'rat shit shack' will usually work as an mpf102.

Most of them are good to about 10 mhz, but you need to check the biasing resistor on each and every one, since tolerances are HUGE.

Bob

Hi...I was able to get them from Radio Shack! I also got a replacement... I'll try to look up the number in my handbook tonight.

Anyway, after I got a replacement part from a mail-order place, I found one in a Radio Shack in Santa Fe. It is a standard stock item....

-Tom
KJ5LT

The MPF102 was the "economy" version of an RF N-Channel J-FET, as I recall. I've searched my Motorola literature, and can find no reference to it any

more recent than 1974.

A better transistor of that generation, that is still available, is the 2N4416A. It is in a metal can instead of the plastic case, and has higher gain than the MPF102. Another transistor that may be useful is the 2N3821. I'm not familiar with it, but it is listed along with the 2N4416A, in the 1992 issue of the Motorola "Master Selection Guide".

73, Fred, K4DII

The 2N4416 is similar and more tightly specified. It's a good replacement choice.

Roy Lewallen, W7EL

Well, you could try using a ... MPF102! They are easily found, and currently manufactured. Check Digi-key, or Jameco, or Mouser, or DC Electronics, or... you get the idea. You might even be able to still get them from Radio Shark.

73,

Chuck Harris - WA3UQV
chuck@eng.umd.edu

Gee, I haven't had any trouble finding it until now.

Anyway, it depends some on the application. Devices with similar specs include:

2N5457-2N5459 (VHF)
2N5484-2N5486 (general purpose)
2N4416 (RF)
J308-J310
NTE/ECG 451-452

No guarantees that any of them will be a plug-in direct replacement in any given application, but some creative reading of the specs should allow you to adapt the circuit.

Some of these have a higher gain-bandwidth product than the MPF102, so you may need to add some impedance to the gate lead to suppress VHF/UHF parasitics, depending on the circuit layout.

73 de ke9tv/2, Kevin

The NTE replacement for the MPF-102 is the NTE451;
J Fet N-Ch. VHF/UHF amp, T092
Cheers;
Howard Anders

Date: Mon, 19 Jul 1993 17:47:31 GMT
From: sdd.hp.com!spool.mu.edu!nigel.msen.com!well!moon!pixar!mongo!
bruce@network.ucsd.edu
Subject: Alinco DJ-580 Intermod Reduction
To: info-hams@ucsd.edu

In article <226b9m\$skqg@jericho.mc.com>, levine@mc.com (Bob Levine) writes:

|> hmm, I don't think there's much difference between replacing a resistor
|> and adjusting a potentiometer. Maybe they should have used potentiometers
|> instead in the first place so engineering afterthoughts would be easier.
|> Bob KD1GG

Of course there's no difference electrically. A bit of an emotional difference however. I would have felt rather silly if I'd blown \$6 shipping and lost the use of the HT for a week just for someone to tweak a potentiometer. Since I don't have enough surface-mount handling tools to do anything but _remove_ components (and that with some trepidation), it's just as well that they did it.

The HT, by the way, is less susceptible to intermod, and seems to hear all of the same stations as before. It now works much better in the situation where I was having problems before - two HTs close together operating the same repeater.

Bruce Perens KD60TD

Date: 19 Jul 93 17:50:56 EST
From: titan.ksc.nasa.gov!k4dii.ksc.nasa.gov!user@ames.arpa
Subject: help me choose a good name....
To: info-hams@ucsd.edu

In article <22eaqo\$96l@charm.magnus.acs.ohio-state.edu>,
ksampath@magnus.acs.ohio-state.edu (Krishna S Sampath) wrote:
> thanks to everyone who replied, i have decided to use

> my full name. as ed hare at arrl pointed out, people should
> get used to other names than "bill" and "mike".... :-)

krishna-

I agree with your decision. You should use the name you want people to call you.

A friend of mine is named Horace. He decided that it was too hard to send on CW, and chose "Bud" to use on the air. Now, after 38 years as a Ham, he is known as Bud by hams and non-hams alike.

73, Fred, K4DII

Date: 19 Jul 93 11:58:23 GMT
From: ogicse!hp-cv!sdd.hp.com!math.ohio-state.edu!cs.utexas.edu!not-for-mail@network.ucsd.edu
Subject: How does an American sign in Canada?
To: info-hams@ucsd.edu

> I'm sorry you don't buy this, because the FCC does. I happened to be browsing
> through the FCC Rule book and part 97--OK, I'm wierd---when I came across this
> particular section. *It is true!!!* If you were to operate in Canada with a
> US amateur radio license, you must observe US rules as well as Canadian. If

(I would have checked Part 97 before igniting, but I lent it to an upgrader -- besides, what fun would Usenet be if everyone checked their facts before posting?)

OK. I *know* their are at *least* 1.7×10^5 net.lawyers who have yet to chip in on this thread.

So:

Can the US government force US citizens to obey US laws while they are not in the US?

Even when those laws conflict/differ from the foreign country's laws?

(Let's keep this to the FCC and I think we all understand that this is *theory*, not practice -- It would be nice if the govt could get citizens to obey the law *here* :-)

73,

Peter Laws
N5UWY/AA, V31WY, VE2???

Peter Laws | "The '90s are gonna make the '60s|plaws@uafhp.uark.edu
n5uwy@ka5bml.ar.usa.noam| look like the '50s" --D. Hopper|plaws@uafsysb.bitnet

Date: Sun, 18 Jul 1993 17:04:57 MDT
From: tribune.usask.ca!kakwa.ucs.ualberta.ca!alberta!adec23!ve6mgs!
usenet@decwrl.dec.com
Subject: Ohio/Penn DX Bulletin #120
To: info-hams@ucsd.edu

SB DX @ ALLBBS \$OPDX.120
Ohio/Penn DX Bulletin No. 120

The Ohio/Penn Dx PacketCluster
DX Bulletin No. 120
BID: \$OPDX.120
July 19, 1993
Editor Tedd Mirgliotta, KB8NW
Provided by BARF-80 BBS Cleveland, Ohio
Online at 216-237-8208 14400/9600/2400/1200/300 8/N/1

Thanks to the Northern Ohio Amateur Radio Society, Northern Ohio DX Association, Ohio/Penn PacketCluster Network, ARRL DX Bulletin, K4CEF & Southeastern Cluster Group, DF4RD, DK7ZB, AD1C, KA3DBN and W8GIO for the following DX information.

9G1AA CARDS. It was reported on one of the DX nets on August 13th, that a W2 down in Florida had recently made a trip to the Netherlands, and had visited several of the ops who put 9G1AA on the air. He reports they are presently waiting on the QSL cards. They have the labels prepared and they will bring them stateside for mailing some time in August.

BV9P, PRATAS. Rumor is circulating that the Pratas trip has now been delayed until August and that Martti, OH2BH, has agreed to join the operators there.

KA3KJH/S0, WESTERN SAHARA. Back on May 25, 1993, OPDX published (OPDX.104) comments by Arseli Echeguren Bardeci, EA2JG (R.A.S.D Manager), stating KA3KJH was operating without permission and was not operating within the S0 territory. This week OPDX received two letters from Gerry, KA3KJH, (which was forwarded by Paul, W8GIO) refuting the allegations by EA2JG. Gerry states he is in Western Sahara as a United Nations military observer monitoring the cease fire between the Frente Polisario military and Royal Moroccan Army. His location is at Agwanit (the UN

Teamsite), in the southeast of Western Sahara. Gerry states he has been there since February and will remain until August. Upon his arrival, Gerry requested authorization to operate an amateur station from this location. As there is no standing civil authority in this region, Gerry worked with the military commander of the Frente Polisario there and requested the use of the call KA3KJH/S0. Gerry only presumed this was coordinated with the Polisario government in exile in Algeria, as there was a brief delay before his operations was approved. Also, Gerry has met with S01MZ, Director of Communications, and has enjoyed tea and pleasant conversation with him, without any questionable references about his operation. This, Gerry feels, assures that his call sign and operations are legitimate. Gerry indicated that EA2JG has not contacted him directly, nor has any other individuals or groups, with regards about his operations. All materials for accreditation will go to the ARRL after his return to the USA in August.

KH3, JOHNSTON ISLAND. Two stations were active this past week from here, KH3/N5HX and KH3/NH6D. Activity was on 15 and 20 meter CW around 0130z and 1030z.

OH0, ALAND ISLANDS. Martin ("MART"), DK7ZB, will be active as OH0/DK7ZB from July 25th to Aug 20th. Activity will be on CW only and on all bands 6-160 meters, especially on the WARC bands. Martin should have a great signal using a 3 element beam on 10/12/15 meters, a 2 element beam on 17/20 meters, a Delta-Loop on 30/40 meters and a Double-Zepp on 80/160 meters. PLEASE only QSL via the Bureau.

PY0, TRINDADE & MARTIN VAZ ISLANDS. Rolf, PY1R0, will operate from Trindade for about 5 days starting about July 28th. He will operate mainly CW on 10-160 meters, including the WARC bands (less 10 MHz, because no legal privileges in Brazil). For the IOTA chasers, Rolf may operate from Martin Vaz Island for a short period during those 5 days (This has never been activated!). Rolf will make an announcement if the possibility arises to be active from Martin Vaz (For DXCC this counts the same as Trindade). The call signs are not known yet, but QSLs will go to: Rolf Rasp, P.O. Box 51, Rio de Janeiro, RJ, 20000-970, Brazil.

VP2, ANGUILLA. NODXA member John, KA3DBN, will be active as VP2EBN from August 22-30. Activity will be on 80-6 meters, CW, SSB, and RTTY. He plans to concentrate on 18, 24 and 10 MHz CW. John also plans to be active from St. Maartin for a few days towards the end of his stay. QSL via Bureau or direct to his CBA.

VS6, HONG KONG. Martti Laine, OH2BH, will soon be moving to Hong Kong and he will be there for the next 2 years. We may expect a big-time signal out of VS6 and perhaps some additional good Far East DXpeditions. Martti will be a regional sales manager for a Finnish Cellular Telephone company. His territory will include BV, BY, VS6/VR2, DU, HL and P5!

ZS8, MARION ISLAND. ZS8MI continues to be active on 14195 between 1000Z and 1400Z on longpath. He has also been reported on 14247 and 21205. Christie also reports he will start some CW operation in August.

DXAC HAPPENINGS. Here are the results of two DXAC votes that were announced July 12th: 1) The DXAC voted 6 yes and 10 no on the question of adding band or mode-specific Honor Rolls to the DXCC program. Those voting against the proposal were concerned about a proliferation of awards. 2) The DXAC voted unanimously against a proposal that would have changed the Countries List Criteria Point 2, Separation by Water. Under the failed proposal, distances would have changed from 225 2(a) and 500-mile 2(b) separations to 100 miles 2(a) and 100 miles 2(b). Committee members felt there was insufficient support for the proposed change.

FAX YOUR DX INFORMATION NOW! Faxing is available Monday/Wednesday/Friday from 0430 to 2330z only. The number is 216-237-8208 and operates Group 3 FAX Service Class 2 (EIA/TIA 592) only. Use only the dates and times specified. FAX Service Class 1 (EIA/TIA 578) is available upon request by leaving a message to the Sysop on BARF-80 BBS. The FAX card is sharing the same phone line as BARF-80 BBS using a data/fax/phone switch.

Excerpts and distribution of The OPDX Bulletin are granted as long as OPDX/BARF80 receive credit. To contribute DX info, call BARF-80 BBS online at 216-237-8208 14400/9600/2400/1200/300 and leave a message with the Sysop or send InterNet Mail to: aq474@cleveland.freenet.edu or send BitNet Mail to: aq474@cleveland.freenet@cunyvms or send PRODIGY Mail to: DFJH48A or send a message via packet to KB8NW @ WA8BXN.OH.USA.NA

/EXIT

Date: 19 Jul 1993 16:16:32 -0500
From: elroy.jpl.nasa.gov!swrinde!cs.utexas.edu!gerald@cc.utexas.edu!
emx.cc.utexas.edu!not-for-mail@ames.arpa
Subject: reciprocal licenses
To: info-hams@ucsd.edu

plaws@uafhp.uark.edu (Peter Laws) says:

(in relation to: "How does an American sign in Canada?")

>> I'm fairly certain that US law is completely irrelevant
>> when operating in Canada. And vice versa.

>To which I'll add "or other countries".

>> An amateur operating under a US license is expected by the FCC to abide
>> by US amateur regulations, no matter where in the world he/she happens
>> to be located at the time.

>Sorry. I don't buy this. When you operate in another country you must
>obey **their** law, of course, but not ours.

I think I might have messed up the attributions - forgive me...

When you operate with a reciprocal license, your privs are the intersection of the two sets of privs from each country. Thus, if you have the highest class G call and operate W1/G3XZY here, you cannot legally work 40m phone, because the G and W phone bands have no overlap. Same applies for someone operating as W1XYZ/G. I doubt that there are serious enough differences between the US and Canadian licenses for this to be a problem, although I gather that you can work phone in our CW bands in VE (it's just not polite to do it). Operating with a reciprocal call in VE would not allow you to do this, even if you should be impolite enough to want to, since you can't do it here.

Sorry if I responded to the wrong person above, all these little arrows get very confusing sometimes....

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu

Date: Mon, 19 Jul 1993 19:55:00 GMT
From: pipex!warwick!bsmail!siva.bris.ac.uk!ard@uunet.uu.net
Subject: teletypes
To: info-hams@ucsd.edu

Sorry about my last message to this group - I managed to mangle the header :-(.
Anyway, here's the info again :

The most common teletypes to turn up second hand seem to be :

- 28 - Massive, 5bit machine
- 32 - 5 bit version of the 33 and shares many parts with it.
- 33 - The canonical teletype. ASCII, very mechanical, noisy :-), round keytops.

Versions include : R0-33 (no keyboard, printer only), KSR33 (keyboard and

printer, no paper tape), ASR33 (keyboard, printer, punch, reader). There were also some specials, like detached keyboards, different character sets, sprocket feed, etc.

35,37 - basically more rugged/or with lower case ASCII machines. I have no info on these.

43 - Small, plastic case, electronic (very), dot-matrix printhead, switch-mode psu + TTL-line convertor in rear housing, logic board flat in base, capacitive keyboard. Had 3 main versions (R043 - no keyboard, KSR43 - keyboard/printer, ASR43 - external paper tape unit).

Now to answer the questions :

Ribbons:

In the UK, Inmac still list teletype 43 ribbon cartridges. The 33 ribbon is a standard-ish typewriter ribbon and should be available. It's the same as an Okidata 80 ribbon, or a Commodore 2023 ribbon btw.

Re-inking the 33 ribbon should be OK. I never re-ink dot-matrix ribbons as I value my printheads, although the 43 printhead can be stripped and repaired. I still think you can get a new ribbon though.

Interfacing:

Current-loop was an older (and often more reliable) standard. Basically, you have a loop containing a transmitter (a switch) and a receiver (a current detector) and a current source. The current source can be built in to either the Tx or the Rx, which is then called 'active' (without it it's called 'passive'), and each loop must have exactly one current source. You send data by turning the switch on and off at the right rate. In the ASR33 (and I assume the 32, although all my 5 bit stuff is Creeds), the switch is literally that - a combination of mechanical contacts on the keyboard and the transmit commutator. The ASR33's receiver is a 2-transistor amplifier to drive the receive magnet. Almost all teletype interfaces are passive. The current flows in the idle state, which corresponds to the -ve state of the RS232 line. Both the transmitter and receiver should be opto-isolated from your computer/TNC.

The teletype 43 often has both current loop and RS232 on the same connector. the RS232 pinout is standard, and the current loop uses otherwise spare pins. You have to strap pins 3-4 to use current loop. The 33 has many versions. The standard one for line working has a current loop interface with a 9 pole terminal strip at the back. Terminals 1 and 2 are 115V mains, so be careful. I can look up the others if you like. There are other versions for modem working with autodialers etc built in. Data Dynamics packed the 33 chassis into a new case with their own electronics which did RS232 as well. You can fairly easily convert RS232-current loop - I can look up some notes on that as well.

Parts/repairs:

I have services manuals for the 33 and 43 (Note, the 33 manual is 3 books), and most of the 32 manual. I can look up almost anything on these machines.

Parts are almost unobtainable now. The 33 (and earlier) should be less of a

problem, as mechanical stuff can be repaired, but the 43 has 40-pin custom chips in it that are (as far as I know) unobtainable.

If you e-mail/post the number of the machine you have, I'll see if I can dig out some info for you...

-tony

Date: 19 Jul 1993 21:19:51 GMT
From: news.larc.nasa.gov!grissom.larc.nasa.gov!kludge@ames.arpa
Subject: teletypes
To: info-hams@ucsd.edu

In article <19JUL199320554768@siva.bris.ac.uk> ard@siva.bris.ac.uk (PDP11 Hacker) writes:

>33 - The canonical teletype. ASCII, very mechanical, noisy :-), round keytops.
>Versions include : R0-33 (no keyboard, printer only), KSR33 (keyboard and
>printer, no paper tape), ASR33 (keyboard, printer, punch, reader). There were
>also some specials, like detached keyboards, different character sets,
>sprocket feed, etc.

The 33 is the canonical teletype only for computer folks. The 33 was a very cheaply made machine, not intended for continuous duty service. As a result, it was picked up by a lot of minicomputer manufacturers to use as consoles. A seemingly enormous number of the things were sold in the seventies, and as a result they turned up surplus in record numbers in the eighties. They aren't really typical teletypes at all.

--scott

--

"C'est un Nagra. C'est suisse, et tres, tres precis."

Date: 19 Jul 1993 20:45:35 GMT
From: topaz.bds.com!topaz.bds.com!ron@uunet.uu.net
Subject: teletypes
To: info-hams@ucsd.edu

> 35,37 - basically more rugged/or with lower case ASCII machines. I have no
> info on these.

The 35 is a faster ASCII terminal that takes pinfeed paper and will do form feeds (This I found amusing back in my early computing days).

The 37 is an 15 cps upper and lower case machine with hardware tabs and vertical half and reverse stepping. Uses a typebox rather than a drum

like on the 33's. Can be fitted with an extra (greek) typebox. Also has a large new line key (no doubt you'll now understand that this was the primary terminal made available to those who wrote UNIX). My 37 has an RS-232 interface. The motor won't start until the modem provides DSR and there's a big green PROCEED light that comes on when you get CD.

Anybody want an ASR-37 with all the tech manuals cheap?

-Ron

Date: 19 Jul 93 22:57:34 GMT
From: news-mail-gateway@ucsd.edu
Subject: using the sound blaster for packet
To: info-hams@ucsd.edu

Jim Jacobsen : N9IE0@siucvmb.edu
Recently, I have developed some software that uses the FM voice chips in the Sound Blaster to send 1200 Baud FSK Packet. I was curious if there were others around that may have also been able to do this using the FM music chips. If anyone is interested in this , or interested in the DTMF sound Blaster tone generator that I have also developed, please leave me a reply.

Date: 19 Jul 93 22:33:29 GMT
From: ogicse!uwm.edu!math.ohio-state.edu!howland.reston.ans.net!ux1.cso.uiuc.edu!news.cso.uiuc.edu!usenet@network.ucsd.edu
Subject: using the sound blaster for packet
To: info-hams@ucsd.edu

In <9307192204.AA03433@ucsd.edu> N9IE0@SIUCVMB.SIU.EDU writes:
>Jim Jacobsen : N9IE0@siucvmb.edu
>Recently, I have developed some software that uses the FM voice chips
>in the Sound Blaster to send 1200 Baud FSK Packet. I was curious if
>there were others around that may have also been able to do this using
>the FM music chips. If anyone is interested in this , or interested
>in the DTMF sound Blaster tone generator that I have also developed,
>please leave me a reply.

I have seen someone selling a similar software at the Indianapolis hamfest 2 weeks ago. I don't remember who he was and what the details were.

Ignacy Misztal

Ham radio: N09E, SP8FWB

Internet: ignacy@uiuc.edu Bitnet: ignacy@uiucvmd.bitnet
University Of Illinois 1207 W. Gregory Dr., Urbana, IL 61801, USA
tel. (217) 244-3164 Fax: (217) 333-8286

Date: 19 Jul 93 22:10:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: Yaesu FT-530 HT Mods?
To: info-hams@ucsd.edu

I've had spotty access to Info-Hams until recently, so if this is a repeat of some earlier posting ... I apologize in advance.

There've been several messages concerning modifications to the Yaesu FT-530 HT. Yaesu was kind enough to fax me a page that showed how to 'open-up' the receiver coverage. I wanted to be able to listen to aircraft down to 116 MHz, and the 'stock' FT-530 (at least here in the States) only goes down to 130 MHz.

This's the "S13" & "S15" 'strap' removal, about which there has already been some discussion. Removing those two jumpers 'opens-up' the 530's receiver so that it covers 110 - 180 MHz and 300 - 500 MHz; it also turns-on that 'OTHER' band, but we won't talk about that (what's between 800 & 950 MHz in Europe?).

Date: (null)
From: (null)
The 'expanded' FT-530 receives well, although it does have some tendency to suffer from images on VHF (haven't noticed them on the UHF side). I spoke with Yaesu, and they confirmed that the receiver's 'front-end' varactor-tuning preselector is way outside its alignment range when down in the aircraft band (I heard the Dallas '88 repeater down in the aircraft band, at twice the receiver's IF (15.25 MHz) 'down'. And yes, I DID have the AM detector on).

Now, having said all this, I'd like to ask if anybody's got information regarding what the other 'straps' do in the FT-530? I think that there are either 15 or 16 'straps' (really miniscule solder 'blobs' for the most part) do? That's one of the 'limitations' of a software-driven piece of gear ... no amount of 'Schematic-Reading' (notice the words are in cap's, I'm talking about SERIOUS, late-night, schematic reading!) will result in revelations about what the item under scrutiny 'wants' to do, under different programming (those 'blobs') situations.

Anyone got a buddy in Yaesu's software shop, so we

can find out what other tricks the FT-530 knows?!

Regards;

Paul Nix (WB5AGF) Garland, Texas (north side of Dallas)

InterNet: nix@bigbrd.aud.alcatel.com

End of Info-Hams Digest V93 #876
